Jon Berliner

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EDUCATION

PRINCETON UNIVERSITY
PhD Student in
Psychology and Neuroscience
Expected May 2018 | Princeton, NJ

VASSAR COLLEGE
BA in Mathematics
BA in Cognitive Science
May 2012 | Poughkeepsie, NY
GPA: 3.7 / 4.0

COURSEWORK

GRADUATE
Theoretical Machine Learning
Proseminar in Cognitive Neuroscience
Proseminar in Cognitive Psychology
Proseminar in Social Psychology

UNDERGRADUATE
Senior Research Thesis
Modeling REM sleep function in
Restricted Boltzmann Machines

Discrete Mathematics
Dynamical Systems
Linear Algebra
Functional Programming
Object Oriented Programming
Perception and Action
Senior Seminar: Embodied Cognition

SKILLS

PROGRAMMING
Advanced:
Python • Matlab • R • LaTeX
Proficient:
Javascript • HTML • CSS
Experience:
MySQL • C • Julia • Java

RESEARCH METHODS
Development of Statistical
Decision Making Theory
Amazon Mechanical Turk
Behavioral Motor Control Research
Bayesian Model Comparison
Reinforcement Learning Models
Neural Network Models

RESEARCH EXPERIENCE

BOTVINICK LAB
Princeton University | PhD Student
August 2013 - Present | Princeton, NJ

- PhD candidate under Professor Matt Botvinick.
- Conducting research on active learning in human decision making. Conceive, code, and analyze dynamic online experiments, which adapt to performance.
- Compare human performance to machine learning models.
- Building fast recurrent neural networks to use on massive-scale temporal datasets, with current focus of >billion word language corpi.

INTELLIGENT PERFORMANCE AND ADAPTAION LAB
Princeton University | Research Specialist
July 2012 – Aug 2013 | Princeton, NJ

- Built new lab under professor Jordan Taylor with one other specialist.
- Lead programmer of robotic manipulandum virtual reality Environment.
- Designed and built motion-tracking VR environment.
- Conceived, ran, and analyzed experiments on active learning in motor control.

INTERDISCIPLINARY ROBOTICS RESEARCH LAB
Vassar College | Department Programmer
Jan 2009 – May 2012 | Poughkeepsie, NY

- Recorded measurements of a lab-developed autonomous aquatic robot.
- Coded experiments used for teaching Cognitive Science courses.

DESHPANDE SCHIZOPHRENIA LAB
Dr. Ram Manohar Lohia Hospital | Visiting Researcher
June 2011 – August 2011 | New Delhi, India

- Designed and tested risk-analysis models of susceptibility to schizophrenia.
- Built and taught lab to use automated data processing pipeline.

BRAIN AND BEHAVIOR LAB
University of Pennsylvania | Student Researcher
June 2010 – August 2010 | Philadelphia, PA

- Ran first-level fMRI analyses on schizophrenic patient data.
- Assisted in leading children through mock-fMRI sessions before scans. .

CONFERENCE PRESENTATIONS

- Berliner, J., Botvinick, M., & Taylor, J. (2013). Assessing structure learning in motor tasks. Reinforcement Learning and Decision Making Conference, Princeton, NJ, USA.
- Berliner, J., Brudner, S., & Taylor, J. (2013). Left-hand adaptation at the cost of right-hand adaptation. Society for Neuroscience, San Diego, CA, USA.
- Brudner, S., Berliner, J., & Taylor, J. (2013). Relative timing of sensory-and reward-prediction errors affects motor learning. Society for Neuroscience, San Diego, CA, USA.
- Bhatia, T., Gettig, E., Berliner, J., Mishra, N., Garg, K., Nimgaonkar, V., & Deshpande, S. (2012). Risk stratification incorporating cognitive endophenotypes for schizophrenia (SZ) in India. 3rd Biennial Schizophrenia International Research Conference, Florence, Italy.

HONORS AND DISTINCTIONS

2013 NSF Graduate Research Fellowship Program • Honorable Mention
2012 Vassar College Departmental Honors • Cognitive Science
2011 Tananbaum Family Fellow Leadership Program for Work and Development
2011 Psi Chi International Honor Society in Psychology
2010 Barry M. Goldwater Scholarship • Vassar Nominee